

Title (en)

LITHIUM AND VANDIUM OXIDE $\text{Li}_{1+a}\text{V}_3\text{O}_8$ (0,1 ≤ a ≤ 0,25) METHOD FOR THE PREPARATION THEREOF

Title (de)

LITHIUMVANADIUMOXID $\text{Li}_{1+a}\text{V}_3\text{O}_8$ (0,1 ≤ a ≤ 0,25) UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

OXYDE DE LITHIUM ET DE VANDIUM $\text{Li}_{1+a}\text{V}_3\text{O}_8$, 0 ≤ a ≤ 0,25, PROCEDE POUR SA PREPARATION

Publication

EP 1831110 B1 20151209 (FR)

Application

EP 05809319 A 20051018

Priority

- FR 2005002580 W 20051018
- FR 0411310 A 20041022

Abstract (en)

[origin: WO2006045922A1] The invention relates to a lithium and vanadium oxide. The oxide corresponds to formula $\text{Li}_{1+a}\text{V}_3\text{O}_8$ (0,1 ≤ a ≤ 0,25) and is made up of agglomerates of small needles whose length L is 400 - 1000 nm, whose width is such that $10 < L < 100$ and whose thickness e is such that $10 < e < 100$. It is obtained by a method consisting in preparing a precursor gel by bringing V_2O_5 and a Li precursor into contact with each other, the amounts of which being selected in such a way that the ratio of concentrations $[\text{V}_2\text{O}_5]/[\text{Li}]$ ranges from 1.15 to 1.5, and in subjecting the gel to thermal treatment consisting of a first stage at 80 °C - 150 °C during 3 hours - 15 days, and a second stage between 250 °C and 350 °C, during 4 mins to 1 hour, in a nitrogen or argon atmosphere. Applications: positive-electrode active matter.

IPC 8 full level

H01M 4/131 (2010.01); **C01G 31/00** (2006.01); **H01M 4/136** (2010.01); **H01M 4/48** (2010.01); **H01M 4/485** (2010.01); **H01M 4/58** (2010.01); **H01M 4/62** (2006.01); **H01M 10/0525** (2010.01); **H01M 10/36** (2010.01)

CPC (source: EP KR US)

C01D 15/00 (2013.01 - KR); **C01G 31/00** (2013.01 - EP KR US); **C01G 31/02** (2013.01 - KR); **H01M 4/131** (2013.01 - EP US); **H01M 4/136** (2013.01 - EP US); **H01M 4/485** (2013.01 - EP US); **H01M 4/58** (2013.01 - KR); **H01M 4/5825** (2013.01 - EP US); **H01M 4/62** (2013.01 - EP US); **H01M 10/0525** (2013.01 - EP US); **Y02E 60/10** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2876997 A1 20060428; **FR 2876997 B1 20070119**; CA 2584229 A1 20060504; CA 2584229 C 20130903; CN 100572288 C 20091223; CN 101065327 A 20071031; EP 1831110 A1 20070912; EP 1831110 B1 20151209; ES 2563035 T3 20160310; JP 2008516885 A 20080522; JP 5112072 B2 20130109; KR 101276569 B1 20130618; KR 20070085426 A 20070827; US 2010112440 A1 20100506; US 2013216917 A1 20130822; US 8435484 B2 20130507; US 9373835 B2 20160621; WO 2006045922 A1 20060504

DOCDB simple family (application)

FR 0411310 A 20041022; CA 2584229 A 20051018; CN 200580036259 A 20051018; EP 05809319 A 20051018; ES 05809319 T 20051018; FR 2005002580 W 20051018; JP 2007537326 A 20051018; KR 20077011605 A 20051018; US 201313857832 A 20130405; US 66593205 A 20051018